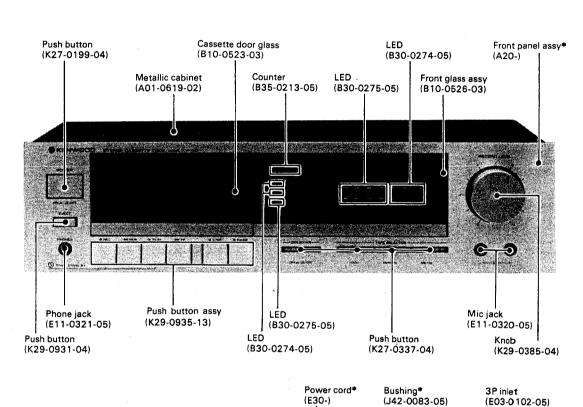
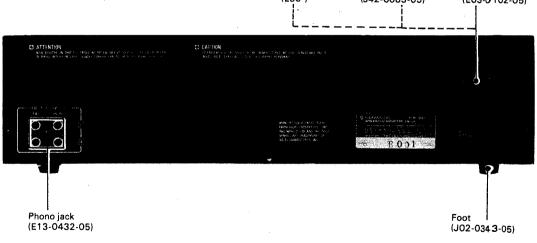




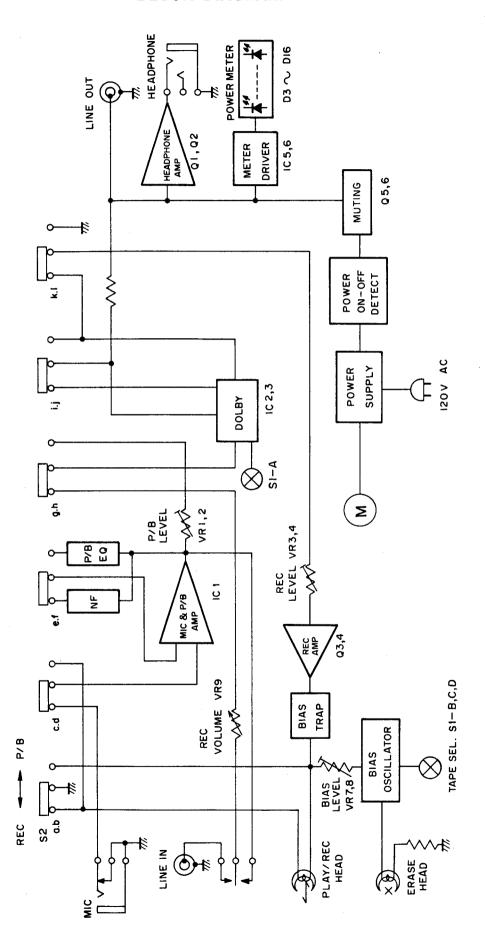
STEREO CASSETTE DECK





*Refer to parts list on page 10.

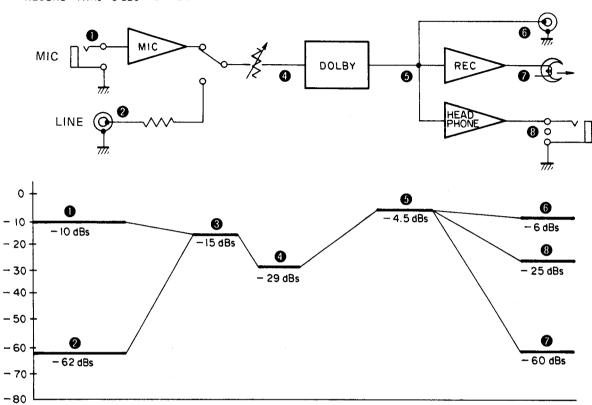
BLOCK DIAGRAM



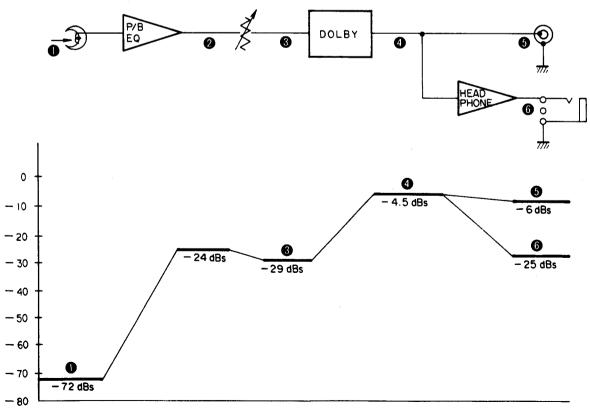


LEVEL DIAGRAM

RECORD: IKHZ OdBs = 0.775 V







KX-50

ADJUSTMENT

1. Test Instruments

- AC voltmeter (High input impedance)
- · Audio signal generator: AG
- Oscilloscope
- · Frequency counter
- · Wow and flutter meter
- Weighting filter
 (ASA A characteristic with NAB curve)
- Band pass filter (Center frequency: 100 Hz, 1 kHz: Attenuation: 18 dB/oct. or more)
- Cassette type torque gage (TW-2111: T99-0208-00)
- · Spring balance
- Head demagnetizer
- Cleaning tape (T93-0014-05)

2. Test Tapes

 a) Test tapes for recording system adjustment NORMAL:

MAXELL UD-XL1 (T93-0013-15)

CHROME (for measurement):

TDK AC-511 (T93-0010-05) or SAC-60

METAL: TDK AC-701 (T93-0018-00)

b) Test tape for playback measurement TEAC MTT-111 (Tape speed, azimuth) (T93-0015-00) TEAC MTT-216 (Frequency characteristic) (T93-0016-00) TEAC MTT-216R (Frequency characteristic) (T93-0017-00) Mirror tape (T93-0021-00)

3. Notes for Adjustments and Measurements

- 1. **Load resistance:** A pure resistance load of 100 k Ω should be connected to the LINE OUTPUT terminal.
- 2. Standard level: 0 dBs = 0.775V
- 3. The electrical system should be adjusted by dividing it into playback and recording.

Adjustment of recording requires perfect performance of the playback system.

No special adjustment should be required unless inner components are replaced.

- 4. When the head is replaced, its stray magnetism must be completely erased by the demagnetizer prior to mounting the tape.
- Unless otherwise designated, measurement should be carried out with the Dolby NR switch off.

4. Meaning of Technical Word

- a) Standard playback condition: The state obtained by reproducing the reference level 315 Hz signal (160 pWb/mm) of the test tape and by adjusting the playback level so that the standard output level (-6 dBs = 0.3875V) can be obtained at the LINE OUTPUT terminal
- b) Standard recording level: A level to obtain residual magnetic flux of 160 pWb/mm on the standard recording tape, which is 4 dB below the level 315 Hz, 0 dB (250 pWb/mm) of the test tape (MTT-216R).
- c) Standard input level: The standard input level necessary for obtaining the normal recording level. The levels at respective input jacks are as specified below. However $80k\Omega$ resistor should be inserted in the input of the DIN connector in series.

 MIC INPUT
 -62 dBs (0 VU)

 LINE INPUT
 -10 dBs (0 VU)

 DIN INPUT
 -24 dBs (0 VU)

- d) Standard recording condition: The state obtained by applying the 1 kHz signal to the LINE INPUT jack at the normal input level (-10 dBs) and by adjusting the RECORD LEVEL volume control so that recording can be carried out at the normal recording level.
- e) Standard output level: The standard signal level obtained at the LINE OUTPUT jack when the reference level 315 Hz signal is reproduced from the test tape. MTT-216R 315 Hz (250 pWb/mm)

Output level: 4 dBs

MTT-216 315 Hz (160 pWb/mm)

Output level: O dBs

TEST TAPE SPECIFICATION

				DESCRIPTION	ARRIGATION
MODEL	TITLE	TIME CONSTANT	FREQ/LEVEL	PROGRAM	APPLICATION
MTT-111	FLUTTER	_	3 kHz 10 dB	- 10d8 38Mz 30 Min.	Tape Speed Test Wow and Flutter T est
MTT-116R (MTT-216R)	FREQUENCY	1590 μs and 120 μs	40 Hz ~ 10 kHz 0 dB/ — 10 dB 0 dB DIN REFERENCE LEVEL	3 15 10h 40 125 500 2h 6 3h 10h 0dB 6 3h 315 63 250 1h 4h 8h 30 30 30 10	Frequency Response Test
MTT-116U (MTT-216)	FREQUENCY	3180 μs and 120 μs	31.5 Hz ~ 14 kHz 0 dB/ — 20 dB 0 dB: DIN REFERENCE LEVEL — 4 dB	315 10h 31.5 63 250 /k 4h 8k 12.5h - 20d8 6.3h 315 40 125 500 2k 6.3h 10h 14h	Frequency Resportse Test



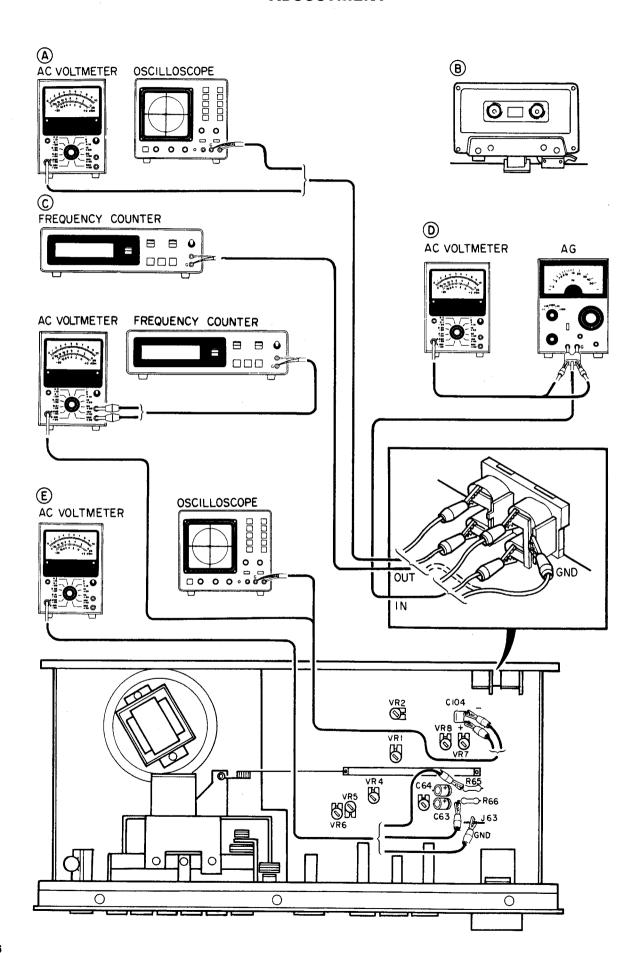
ADJUSTMENT

Step	Item	Input	Output	Cassette deck setting		to be	Adjustment
		setup	setup		L	R	
1. /	Adjusting REC/PLA	Y head			Am	· · · · · ·	
1.	Demagnetization and cleaning	_	_	Power: OFF	REC/PL erase hi capstan pinch ro	i.	Demagnetize the REC/PLAY head with a head demagnetizer or a cassette type demagnetizer. Clean the REC/PLAY head, erase head, capstan and pinch roller using an applicator soaked with alcohol.
2.	Fine adjustment of head azimuth	_	A	(B) MTT-216R.10kHz, — 20dB PLAY DOLBY: OFF TAPE SEL: NORMAL	Azimuth adj. screw		Adjust screw so that the maximum output is obtained
Chec	c azimuth of the hea	d again, th	nen lock t	he screws with adhesive.			
11.	Printed circuit board	adjustm	r	· · · · · · · · · · · · · · · · · · ·			
1.	Tape speed		©	B MTT-111 PLAY:	PC trimr potentio in the D		Adjust the PC trimming potentiometer so that the reproduced frequencey becomes 3000 Hz.
2.	Playback level		A	(B) MTT-216 (MTT-116U) 315 Hz, O dB PLAY	VR1 VR2		Adjust VR1 (VR2) so that the output of —6 dBs is obtained.
				OUTPUT: LINE OUT DOLBY: OFF TAPE SEL: NORMAL	X28-1390- **		
3.	Record current	1 kHz - 10 dBs	ditto	B UD-XL1 REC DOLBY: OFF	VR3	VR4	Adjust VR3 (VR4) so that the playback output becomes —6 dBs. The output increases as the VRs are turned clockwise.
				INPUT: LINE IN TAPE SEL: NORMAL Adjust the RECORD volume control so that the monitor output becomes —6 dBs and perform recording then playback	X28-1	390-**	Note: Adjusting method €. If an output of —6 dBs cannot be obtained connect an AC voltmeter to the junction between C63 and R65 (C64 and R66). For example, when the playback output of —3 8 dBs is obtained, read the reading of the AC voltmeter with this connection during recording. Then, adjust VR3 (VR4) so that the reading of the AC voltmeter reduces by 1.2 dB. Now, the playback output is set to —6 dBs.
4.	Bias current	① 1 kHz 30 dBs	ditto	Record 1 kHz and 10 kHz consecu- tively with the	VR7	VR8	Adjust VRs so that the playback output level at 10 kHz is equal to that at 1 kHz. The bias current increases and the output level at 10 kHz
		10 kHz - 30 dBs		same setting as in Step 5.	X28-1390-**		drops as the VRs are turned clockwise. If the VRs are turned too much, perform Step 3, then Step 4 again.
5.	Peak level meter	D 1 kHz.	ditto	PAUSE: ON with other setting the same as in	VR5	VR6	Adjust to 0 VU
		- 10 dBs		Step 3.	X28-1	390-**	

For measurements, refer to the KX-600 service manual with few modifications shown in the following.

ltem	Column		For KX-50
Playback level (LINE OUT)	Standard and remarks		− 6 dBs ±1,5 dB
9. Erase ratio	Input signal		125 Hz, -4 dBs
11. Crosstalk between tracks	Input signal		125 Hz, ~ 10 dBs
12. Bias leak	Standard and remarks METAL		— 40 dBs max.
14. Peak LED lighting level	All	•	Delete

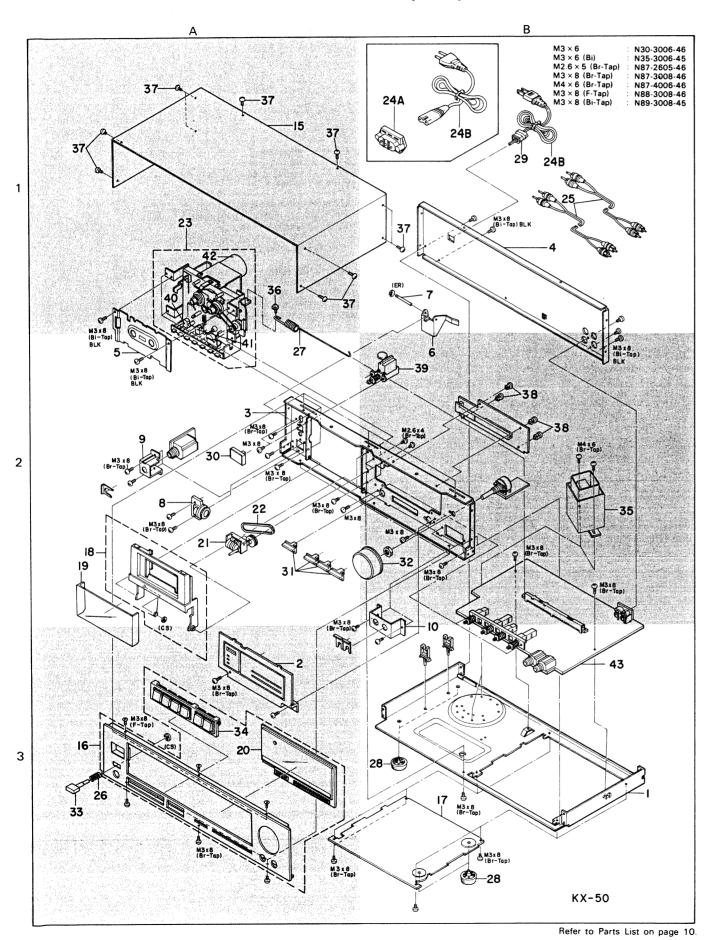
ADJUSTMENT

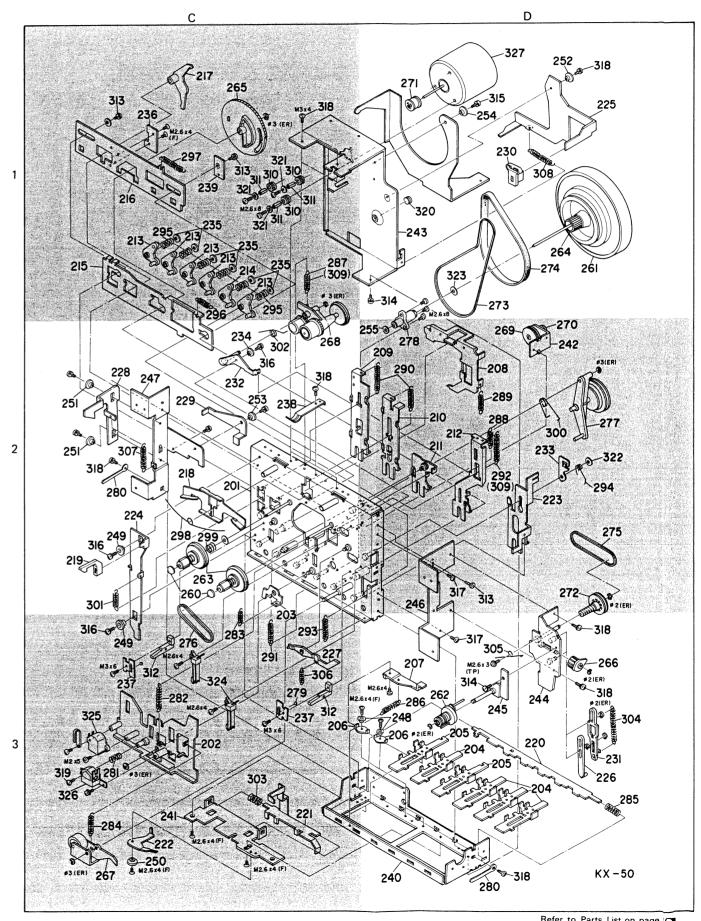


KX-50 KX-50

EXPLODED VIEW (UNIT)

EXPLODED VIEW (MECHANISM)

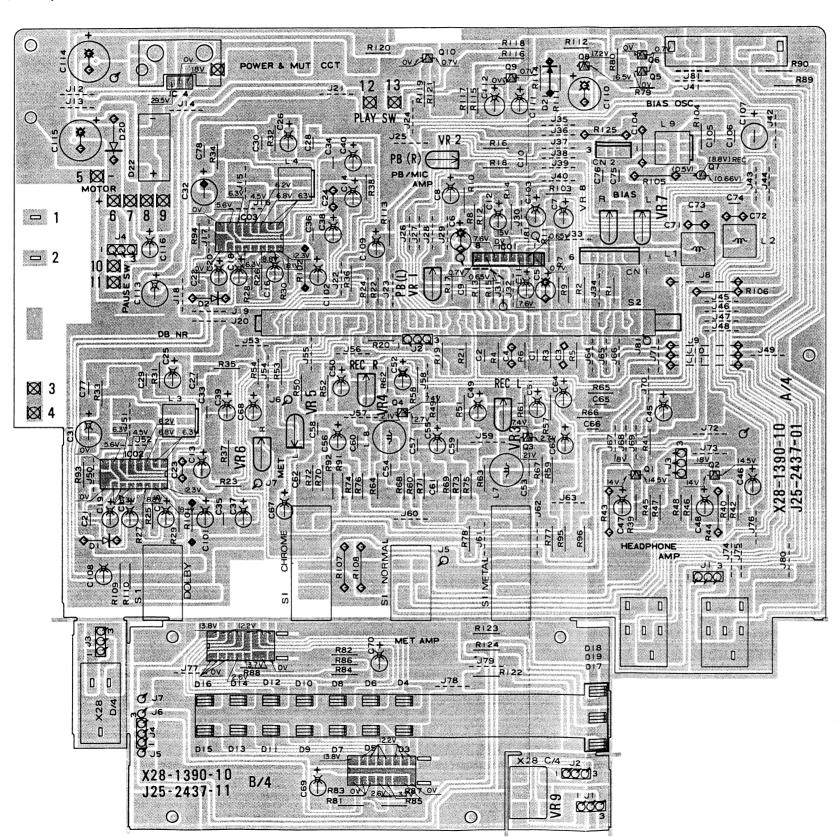








AMPLIFIER (X28-1390-**) Component Side View



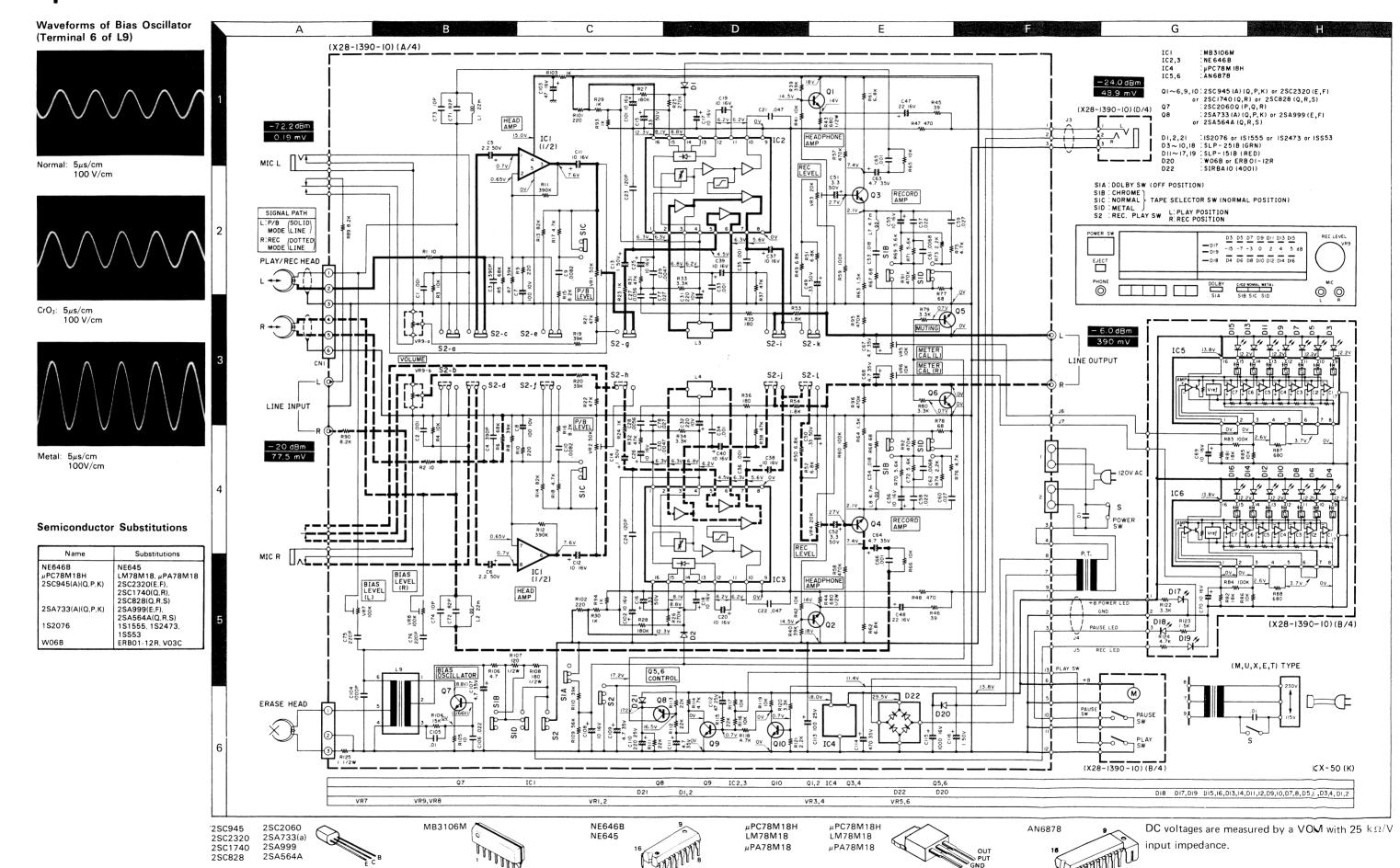
: MB3106M : NE 646B ICI IC2,3 :µPC78M 18H :AN6878 IC5,6

D1,2,21 :IS2076 or IS1555 or IS2473 or ISS53 D3~10,18 :SLP-251B (GRN) D11~17,19 :SLP-151B (RED)

D20 W06B or ERB01-12R : SIRBAIO (4001)

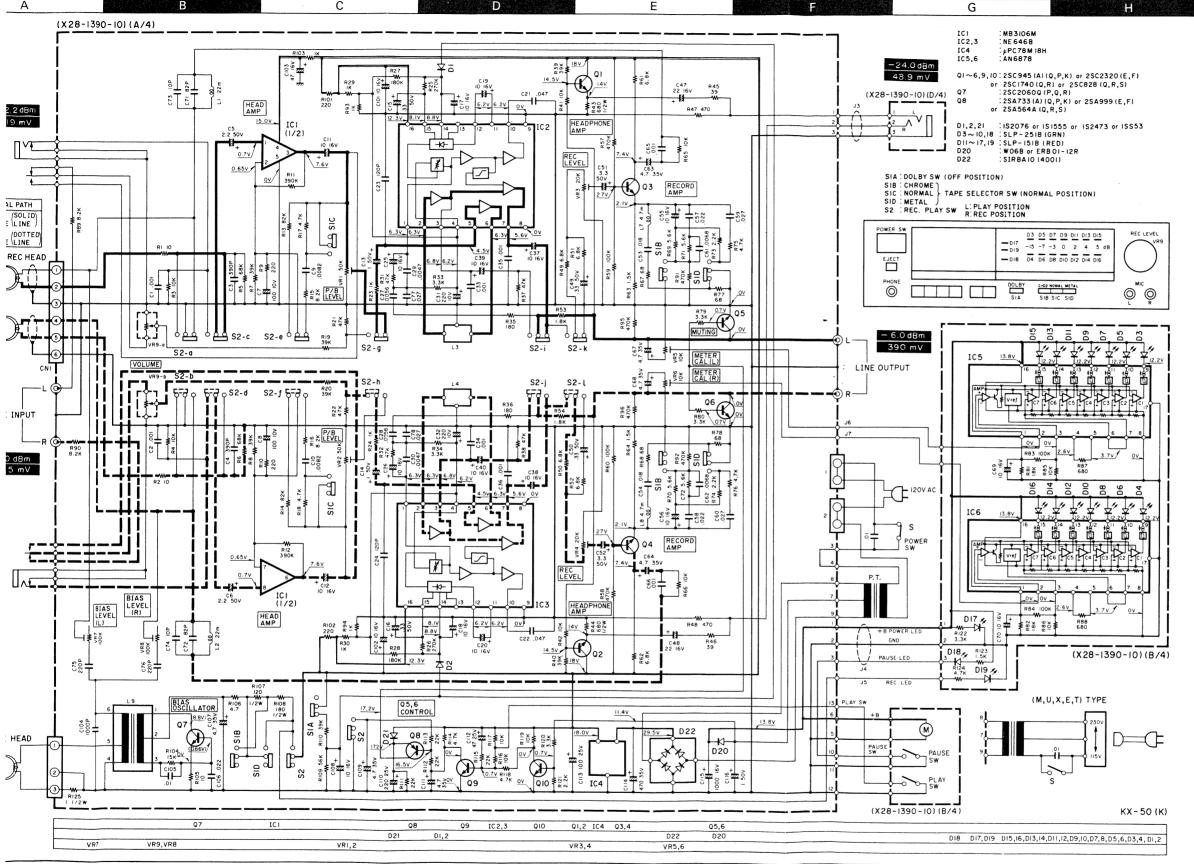


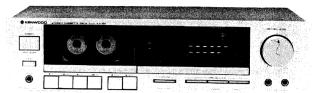
STEREO CASSETTE DECK



STEREO CASSETTE DECK





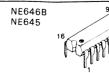


SPECIFICATION	18
	Front Loading Stereo Cassette Deck with Dolby NR System
Track System	. 4-Track, 2-Channel Stereo/Mono, Recording/Playback
Recording System	AC Bias System (Bias Frequency: 105 kHz)
Erasing System	. AC System
Tape Speed	4.76 cm/sec (1-7/8 ips)
Heads	Record and Playback Head × 1 (Hard Permalloy)
	Erase Head x 1 (Ferrite)
Motor	Electronically Controlled DC Motor
Fast Winding Time	Approx 105 seconds with C-60 tape
Frequency Response:	•
Normal Tape	. 20 Hz to 16,000 Hz (35 Hz to 15,000 Hz, ±3 dB)
CrO ₂ Tape	. 20 Hz to 16,000 Hz (35 Hz to 15,000 Hz, ±3 dB)
Metal Tape	. 20 Hz to 16,000 Hz (35 Hz to 15,000 Hz, ±3 dB)
Signal to Noise Ratio:	
	. 67 dB (Normal and CrO ₂ Tape), 68 dB (Metal Tape)
Dolby NR OFF	57 dB (Normal and CrO ₂ Tape), 58 dB (Metal Tape)
	Less than 1.0% (at 1 kHz, 0 VU with Metal Tape)
Wow and Flutter	0.05% (W.R.M.S.)
Input Sensitivity/Impedance:	
LINE × 2	
Microphones × 2	0.19 mV/10 kohms
Output Level/Load Impedance:	,
LINE × 2	
Headphones × 1	
Built-in Features	Dolby Noise Reduction System
•	Three Position Tape Selector (Normal/CrO ₂ /Metal)
	7-LED Peak Level Meters (-15 dB to +5 dB)
	Full Auto Shut Off Mechanism in all Modes
	LED Recording, Pause and Power Indicators
	Timer Standby Mechanism
	Three Digit Tape Counter
	Two Microphone Jacks, Headphone Jack
Power Requirements	AC 120V, 60 Hz. U.S.A. and Canada Models
	AC 120V/220-240V (Switchable), 50/60 Hz Other Countries
Power Consumption	13.0 watts
Dimensions	W: 440 mm (17-5/16")
	H: 119 mm (4-11/16")
	D: 237 mm (9-5/16")
Weight	4.5 kg (9.9 lbs.)
Supplied Accessories	Audio Connection Cables x 2
	Head Cleaning Set x 1
Reference Tapes	Normal. MAXELL-XLI C-60
	CrO ₂ : TDK SA C-60
	Metal: TDK MA-R C-60

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

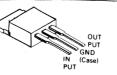
Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Anderungen der technischen Daten jederzeit vorbehalten.





μPC78M18H LM78M18 μPA78M18

μPC78M18H LM78M18 μPA78M18



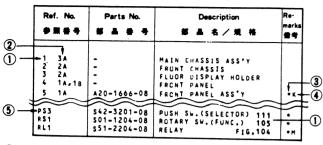


DC voltages are measured by a VOM with 25 k_Ω/V input impedance.

PARTS LIST

PARTS LIST

INSTRUCTION FOR PARTS LIST



- ① Exploded view drawing No.
- 2 Position in exploded view.
- 3 Symbol of new parts
- Area to which parts are shipped. Example: A20-1390-13 is the part No. of FRONT PANEL ASS'Y for the "K" type products (for U.S.A.). When this column is blank, it means that the same type of parts (same parts No.) are used for the products shipped to all areas.
- 3 Reference No. in schematic diagram.
- Abbreviation of "ceramic capacitor" All capacitors and resistors are listed using abbreviations. Abbreviations
- * Abbreviations of capacitors (Parts No. with initial letter "C"). **ELECTRO** Electrolytic capacitor Low leak electrolytic capacitor LL-ELEC NP-ELEC Non-pole electrolytic capacitor MICA . . Mica capacitor POLYSTY Polystyrene capacitor MYLAR Mylar capacitor CERAMIC . Ceramic capacitor TANTAL . Tantalum capacitor Metallized film capacitor MP Metallized paper capacitor OII Oil capacitor The unit "UF" is used in lieu of " μ F"
- * Abbreviations of resistors (Parts No. with initial letters "R") . Carbon composition resistor . Carbon film resistor FL-PROOF RD . Flame-proof carbon film resistor

RW . Wire wound power resistor FL-PROOF RS Flame-proof metal oxide film resistor Metal film resistor

FUSE-RESIST Resistor with fuse function 2B Rated wattage 1/8W

2E Rated wattage 1/4W 2H Rated wattage 1/2W 3A Rated wattage 1 W 3D Rated wattage 2W Rated wattage 3F : 3 W 3G Rated wattage 4W 3H Rated wattage 5W

All resistor values are indicated with the unit (Ω) omitted. * Abbreviations common to capacitors and resistors.

± 0.25pF (Used for capacitors only) \pm 0.5pF (Used for capacitors only) . ±1% ±2%

±5% . ±10% ± 20%

+80%, -20%(Used for capacitors only) . + 100%, - 0%(Used for capacitors only) Resistors RD (carbon composition resistors) are not listed in the

parts list. For values, refer to the schematic diagram

R	ef. No.	Parts No.	Description	Re-
	照番号	1		marks 備考
		KX-50 UNI	T	
1 2 3 4 5	3 B 3 A 2 A 1 B 2 A	-	MAIN CHASSIS DRESSING PANEL SUB PANEL REAR PANEL DRESSING PLATE	
6 7 8 9 10	2 B 1 B 2 A 2 A 3 B	:	EJECT LEVER SHAFT DAMPER MOUNT HARDWARE(PHONE) MOUNT HARDWARE(MIC)	
15 16 16 16	1 A 3 A 3 A 3 A 3 A	A01-0619-02 A20-2028-03 A20-2028-03 A20-2028-03 A20-2029-03	METALLIC CABINET FRONT PANEL ASSY FRONT PANEL ASSY FRONT PANEL ASSY FRONT PANEL ASSY	* * K PU MX * T
16 17 18	3 A 3 B 2 A	A20-2030-03 A40-0556-03 A53-0239-02	FRONT PANEL ASSY BOTTOM PLATE CASSETTE HOLDER ASSY	*E
- - -		B46-0055-30 B46-0060-00 B46-0061-30 B46-0062-30 B46-0063-13	WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD	P K U U
- - - -		846-0064-20 850-2457-00 850-2458-00 850-2458-00 850-2459-00	WARRANTY CARD INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL	X * *K U *P
- - -		850-2459-00 850-2460-00 850-2461-00 850-2462-00 859-0018-00	INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL SERVICE STATIONS'LIST	MX *M *E *T *U
19 20 21	2 A 3 A 2 A	B10-0523-03 B10-0526-03 B35-0213-05	CASSETTE DOOR GLASS FRONT GLASS ASSY COUNTER	:
2 2 2 3	2 A 1 A	D16-0226-04 D40-0519-05	BELT MECHANISM ASSY	.
	1 B 1 B 1 B 1 B 1 B	E03-0102-05 E03-0102-05 E03-0102-05 E30-0181-05 E30-1305-15	3P INLET 3P INLET 3P INLET POWER CORD POWER CORD	UM XE T KP
248 248 248 25	1 B 1 B 1 B 1 B	E30-1328-05 E30-1329-05 E30-1342-05 E30-0505-05	POWER CORD POWER CORD POWER CORD AUDIO CORD	T E X
26 27	3 A 2 A	G01-1080-04 G01-1082-04	COILED SPRING(EJECT) SPRING(REC/PLAY SW.)	
•		H01-2471-04 H01-2471-04 H01-2471-04 H01-2471-04 H01-2474-04	CARTON BOX CARTON BOX CARTON BOX CARTON BOX CARTON BOX	*K PU MX E *T
		H10-2296-02 H20-1107-04 H20-1107-04 H20-1107-04 H20-1107-04	POLYSTYRENE FIXTURE COVER COVER COVER COVER	* * K PU XE T

Re	f. No.		F	Pa	rt	s	No).								[)e	sc	ri	pti	ior	1						Re	
*	照番号	;	部	į	13	ŧ	ŧ	号	.					部		A	4	1	5	/	*	見	4	恪				mai 備:	
-								0 4			0 O		Ε	R														*	M
28 29 29	3 B 1 B 1 B	J	42	2 -	0 0	8 (3 -	05		8		S	H.) W		2	C							+ P	
30 31 32 33 34	2 A 2 A 2 B 3 A 3 A	K	27 29 29	' - ? -	03 03	8	7 - 5 - 1 -	04 04 04 04		K	N	S 0 S	H B H	B (R B	U E U	T ' C T '	T 0) N . E) N	(E	D O	L E S '	BY	•	S	ΕL	.)		* * *	
35 35 35 35 35	2 B 2 B 2 B 2 B 2 B	L	01 01 01	- 1	64 64 64	1	1 - 4 - 4 -	05 05 15 15		P P	000	W (E A	2	T T	R A R A	N N N	\$ \$ \$	F () F ()) R) R) R	M E M E M E	R						* (M)	J
36 37 38	1 A 1 A , 1 B 2 B	N	09	- (3	7	5 -	0 5 0 5 0 5		S		R E	W	ı	М.	3 X	6	(- D	T #	P)	Sι	۷.			:	
39 39 39 39	2 B 2 B 2 B 2 B 2 B	-S -S	40	-1 -1	0 0	3 ? 3 ? 3 ?	; - ; -	0 5		P P P	U :	S H S H	1	\$ \$ \$	W) W)	T T	C	H :	(P (P (P	01	W E W E	R R)					* ! P * ! M)	,
40 41 42	1 A 2 A 1 A	1:	3 4	- 0	0	16	-	05		R	R A E (:/	P	L	A١	В		C k	(H E	ΕA	D						*	
-		w	1	- 0	3	0 1	- (5 0		н	E A	D		C	LE	Α	N	ΙN	G	5	S W	A	В						
43 43	28,38 28,38 28,38 28,38 28,38	X Z	8 8 8 8 8 8 8 8 8	- 1 - 1 - 1	39	90	- 8 - 8	10		1 A 1 A 1 A	4 F 4 F	L	I I I	F] F]	1 E	R R R		P C		B C B C	A A A A A A A A A A A A A A A A A A A	R I R I		A A	S	S ' S '	Y Y Y	* K P * U M X E T	
		ΛPI	_11	FI	Ε	R	()	X2								_	_	_					_			_			_
	-10 -17	83 83	0	- 0 - 0	27	7 4	- (5		LE	D D	(R G	E () E														
C 2 C 5 C 7	,2 ,4 ,6 ,8 ,10	C 4 C 5 C 2 C 2	2 - 5 - 4 -	· 1 · 6 · 1	73 52 01	2 2	- 1 - 5 - 7	6 7 9	0		R	A E C	M : L I	I (2	9 0 • 2) P ! U ! U	F F F	J F	F	1	5	W '					
C13 . C15 . C17 .	,12 ,14 ,16 ,18 ,20	C 2 C 2 C 2 C 2	6 - 5 - 5 -	1	71 73 71	0	- 5 - 4 - 4	7 7 7	1	IP L	E - - E	E E	L E	C		1 t 0 ,		3				5	000	W 1 W 1 W 1 W 1	V V				
C23 / C25 /	,22 ,24 ,26 ,28 ,30	C 4 C 6 C 2 C 4 C 4	5 - 4 - 5 -	1	71 21 75	2 · 0 · 6 ·	- 1 - 6 - 2	5 9 5	E	E L	L E L	A 1 C 1 A 1	4 I F R			1 2	0 0	0	F 5 6	U		J 1 J J	6	w \	,				
033 - 037 - 045 ,	32 36 40 46 48	C 2 C 2 C 2 C 2	5 - 4 - 4 -	1 7 1 7 1 7	71 21 21	0 - 0 -	6	5 9 9	E E	Y L L	E (A F C T C T	R	0	(0.0	-	F		F		J 1	61	W V	,				
51 ,	5 0 5 2 5 4	C 2 !	5 -	17	3	3 -	5	7	L	Ŀ	- E	L	E		3	,		3 (U F 1 S	:					V					

Ref. No.	Parts No.	Description	Re-
参照番号	部品番号	部品名/規格	marks 備考 1
C55 ,56 C57 ,58 C59 ,60 C61 ,62 C63 ,64	C24-1210-69 C45-1722-35 C45-1727-35 C45-1768-25 C24-6547-57	ELECTRO 10UF 16WV MYLAR 0.022UF J MYLAR 0.027UF J MYLAR 0.0068UF J ELECTRO 4.7UF 35WV	10
C65 ,66 C67 ,68 C69 ,70 C71 ,72 C73 ,74	C45-1710-25 C24-6547-57 C24-1210-69 C71-1782-05 C71-1710-02	MYLAR 0.001UF J ELECTRO 4.7UF 35WV ELECTRO 10UF 16WV CERAMIC 82PF J CERAMIC 10PF D	Q1 Q1 Q1 Q1 Q7
C75 ,76 C77 ,78 C101,102 C103 C104	C71-1722-15 C45-1727-35 C24-1210-69 C24-1247-61 C91-0343-05	CERAMIC 220PF J MYLAR 0.027UF J ELECTRO 10UF 16WV ELECTRO 47UF 16WV MYLAR 0.001UF 630WV	Q8 Q8 Q8 Q9 Q9
c105 c106 c107 c108 c109	C45-1710-35 C45-1722-35 C24-6547-57 C24-1210-69 C24-6547-57	MYLAR 0.01UF J MYLAR 0.022UF J ELECTRO 4.7UF 35WV ELECTRO 10UF 16WV ELECTRO 4.7UF 35WV	20
C110 C111 C112 C113 C114	C24-1422-71 C24-6547-57 C24-1447-61 C24-1410-71 C24-6547-71	ELECTRO 220UF 25WV ELECTRO 4,7UF 35WV ELECTRO 47UF 25WV ELECTRO 100UF 25WV ELECTRO 470UF 35WV	20 20 20 20 20
C114 C115 C116	C24-6547-71 C24-1210-81 C26-1710-57	ELECTRO 470UF 35WV ELECTRO 1000UF 16WV NP-ELEC 1UF 50WV	20 20 21
101 3B 102 2A 103 2B	E11-0320-05 E11-0321-05 E13-0432-05	PHONE JACK(MICROPHONES) PHONE JACK(HEADPHONE) PHONO JACK	* 21 * 21: 21: 21: 21:
L1 ,2 L3 ,4 L7 ,8 L9	L40-2235-21 L79-0312-05 L40-4725-21 L32-0513-05	INDUCTOR 22MH FILTER (DOLBY) INDUCTOR 4.7MH OSCILLATING COIL	* 21: 21: 21: 21:
R101,102 R105 R106 R107	R92-0514-05	FL-PROOF RD680 J 2H FL-PROOF RD220 J 2H FL-PROOF RD10 J 2H FUSE RESIST 4.7 ZE FL-PROOF RD120 J 2H	220 221 222 223 224
R108 R125 VR1 ,2 VR3 ,4 VR5 ,6	R43-1301-05 R12-4302-05 R12-3301-05	FL-PROOF RD180 J 2H FL-PROOF RD1 J 2H TRIMMING POT.(50KB) TRIMMING POT.(20KB) TRIMMING POT.(10KB)	225 226 227 228
VR7 ,8 VR9		TRIMMING POT.(100KB) POTENTIOMETER(100KAX2)	229
\$1 \$2	\$31-0310-05	PUSH SWITCH(DOLBY, SEL) SLIDE SWITCH(REC/PLAY)	* 232 * 233 234
01 ,2	V11-0271-05 V11-1200-80 V11-7700-30	IS1555 IS2076 ISS53 IS2473	235 236 237 238
220 221 221 221 221	V11-0076-05 V11-0271-05 V11-1200-80 V11-7700-30	RB12-01R S1555 S2076 SS53 S2473	239 240 241 242 243 244

NC-XX NG-XX

KX-DU KX-DU

PARTS LIST

Ref.	No.	Parts No.	Description	Re- marks
参照	番号	部品番号	部品名/規格	備考
	ŀ	(X-50 UNIT	•	
1 31 2 37 3 27 4 11 5 21	A A B	- - - -	MAIN CHASSIS DRESSING PANEL SUB PANEL REAR PANEL DRESSING PLATE	
6 21 7 11 8 21 9 21 10 31	B A A	- - -	EJECT LEVER SHAFT DAMPER MOUNT HARDWARE (PHONE) MOUNT HARDWARE (MIC)	
15 17 16 37 16 37 16 37	A A	A01-0619-02 A20-2028-03 A20-2028-03 A20-2028-03 A20-2029-03	METALLIC CABINET FRONT PANEL ASSY FRONT PANEL ASSY FRONT PANEL ASSY FRONT PANEL ASSY	* *K PU MX *T
16 3/ 17 3/ 18 2/	В	A20-2030-03 A40-0556-03 A53-0239-02	FRONT PANEL ASSY BOTTOM PLATE CASSETTE HOLDER ASSY	*E *
-		B46-0055-30 B46-0060-00 B46-0061-30 B46-0062-30 B46-0063-13	WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD	P K U U
-		B46-0064-20 B50-2457-00 B50-2458-00 B50-2458-00 B50-2459-00	WARRANTY CARD INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL	X * *K U *P
-		B50-2459-00 B50-2460-00 B50-2461-00 B50-2462-00 B59-0018-00	INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL SERVICE STATIONS'LIST	MX +M +E +T +U
19 27 20 37 21 27	A	B10-0523-03 B10-0526-03 B35-0213-05	CASSETTE DOOR GLASS FRONT GLASS ASSY COUNTER	:
22 2/ 23 1/	,	D16-0226-04 D40-0519-05	BELT MECHANISM ASSY	
24A 18 24A 18 24A 18 24B 18 24B 18	B B	E03-0102-05 E03-0102-05 E03-0102-05 E30-0181-05 E30-1305-15	3P INLET 3P INLET 3P INLET POWER CORD POWER CORD	UM XE T KP UM
248 18 248 18 248 18 25 18	В	E30-1328-05 E30-1329-05 E30-1342-05 E30-0505-05	POWER CORD POWER CORD POWER CORD AUDIO CORD	T E X
26 3/ 27 2/		G01-1080-04 G01-1082-04	COILED SPRING(EJECT) SPRING(REC/PLAY SW.)	
		H01-2471-04 H01-2471-04 H01-2471-04 H01-2471-04 H01-2474-04	CARTON BOX CARTON BOX CARTON BOX CARTON BOX CARTON BOX	*K PU MX E *T
-		H10-2296-02 H20-1107-04 H20-1107-04 H20-1107-04 H20-1107-04	POLYSTYRENE FIXTURE COVER COVER COVER COVER	* * K PU XE T

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28 29 29	3 B 1 B 1 B	J4:	2 - 0 2 - 0 2 - 0	08	3 -	0.5	E	0 3 0 3 0	S	ΗI) W		₹							*
30 31 32 33 34	2 A 2 A 2 B 3 A 3 A	K2	7 - 0 7 - 0 9 - 0 9 - 0	33 38 93	7 - 5 - 1 -	04	F K	0 0 0 0 0	S O S	H B (B (R (B (JT EC JT	T () N - E) N	(E	L	L E) E (3 Y 3 T	, 9	6 E	L)	*
35 35 35 35 35	28 28 28 28 28	F0.	1 = 6 1 = 6 1 = 6 1 = 6	41 41 41	1 - 4 - 4 -	05 15 15	F	0000	W 6 W 8	R R R	. 1	T R T R	4 A 4 A 4 A	S S S	F (R R R	M E M E M E	R					P M E
36 37 38	1 A 1 A , 1 B 2 B	N09	9-0 9-0 9-0	37	3 -	05	8	C	R	W	١	13	χć	(ΙP) S	L	٧		
39 39 39 39	2 B 2 B 2 B 2 B 2 B	S40 S40	0-1 0-1 0-1 0-1	03 03 03	5 - 7 - 7 -	05 05 05	P	0.0	S S S	1	S I S I	I I I	T (H H	(F	0	W E W E	R)				P * M E
40 41 42	1 A 2 A 1 A	T32	- 0	01	6 -	05	R	R	C /	/ P	L	Y			K	н	ΕA	D					*
-		W01	-0	30	1 -	0 5	н	E	A [)	Cι	. Е	ΑN	I	N G	i	S k	Α	В				
43 43 43 43	28,38 28,38 28,38 28,38 28,38	x 2 8 x 2 8 x 2 8 x 2 8 x 2 8	3-1 3-1 3-1	39 39 39	0 - 0 - 0 -	10 81 81	A	MI	P L P L	I	F] F]	E	R R R	Р	C C	В В В	0 A 0 A 0 A	R	D D	A A A	S	Y S Y S Y S Y S Y	* P * M E
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D3 D11 D18 D19	-10 -17	B3(B3(B3(B3() = 0) = 0	27 27	4 - 5 -	05 05	L	E	D (R	E () E									-		
c1 c2 c5 c7	,2 ,4 ,6 ,8	C 4 5 C 5 2 C 2 5 C 2 4	-1 -6	739 521 01(9 - 2 - 0 -	16 57 79	C L E	E I	R A - E	L	I ()	0. 39 2. 10	2	P F U F					W			
C11 C13 C15 C17 C19	,12 ,14 ,16 ,18 ,20	C 2 4 C 2 5 C 2 5 C 2 4	-1 -1	71(73: 71() - 3 -) -	57 47 47	N L L	L.	- E	L	E C		10	F 3:	3 U				5 0 5 0 5 0	1	V V		
C21 C23 C25 C27 C29	,22 ,24 ,26 ,28 ,30	C 4 5 C 6 5 C 2 4 C 4 5 C 4 5	-1 -1 -1	712 210 756	? - 5 -	15 69 25	C E M	Y I E F L E Y I	R A E C L A	M T R		,	12	0	P F F 0 5	61	J F]]] 6]	W	v		
C33 C37 C45	,32 -36 -40 ,46 ,48	C 2 4 C 4 5 C 2 4 C 2 4	-1; -1;	71(21(21() -) -) -	25 69 69	M E E	L E L E	C	R TI	R 0		22	00	01		F	1) 6 6	W'W	V		
c 5 1	,50 ,52 ,54	C 2 5 C 2 5 C 4 5	-17	733	-	57	L	L - Y I	·E	L		:	3.	3 €	J F		:		0	W 1			

PARTS LIST

Ref. No.	Parts No.	Description	Re-	Ref. No.	F
参照番号	部品番号	部品名/規格	marks	参照番号	部
C55 ,56 C57 ,58 C59 ,60 C61 ,62 C63 ,64	C24-1210-69 C45-1722-35 C45-1727-35 C45-1768-25 C24-6547-57	ELECTRO 10UF 16WV MYLAR 0.022UF J MYLAR 0.027UF J MYLAR 0.0068UF J ELECTRO 4.7UF 35WV		1C1 1C2 ,3 1C4 1C5 ,6	V30 V30 V30
C65 ,66 C67 ,68 C69 ,70 C71 ,72 C73 ,74	C45-1710-25 C24-6547-57 C24-1210-69 C71-1782-05 C71-1710-02	MYLAR 0.001UF J ELECTRO 4.7UF 35WV ELECTRO 10UF 16WV CERAMIC 82PF J CERAMIC 10PF D		Q1 -6 Q1 -6 Q1 -6 Q1 -6 Q7	V03 V03 V03 V03
C75 ,76 C77 ,78 C101,102 C103 C104	C71-1722-15 C45-1727-35 C24-1210-69 C24-1247-61 C91-0343-05	CERAMIC 220PF J MYLAR 0.027UF J ELECTRO 10UF 16WV ELECTRO 47UF 16WV MYLAR 0.001UF 630WV	*	Q8 Q8 Q8 Q9 ,10 Q9 ,10	V01 V01 V03 V03
c105	C45-1710-35	MYLAR 0.01UF J		9 ,10 9 ,10	₹V 03
C106 C107	C45-1722-35 C24-6547-57	MYLAR 0.022UF J ELECTRO 4.7UF 35WV		MEC	HAI
C108 C109 C110 C111	C24-1210-69 C24-6547-57 C24-1422-71 C24-6547-57	ELECTRO 10UF 16WV ELECTRO 4.7UF 35WV ELECTRO 220UF 25WV ELECTRO 4.7UF 35WV		201 2C 202 3C 203 2C 204 3D 205 3D	-
C112 C113 C114	C24-1447-61 C24-1410-71 C24-6547-71	ELECTRO 4,7UF 35WV ELECTRO 47UF 25WV ELECTRO 100UF 25WV ELECTRO 470UF 35WV		206 3D 207 3D 208 2D	
C114 C115 C116	C24-6547-71 C24-1210-81 C26-1710-57	ELECTRO 470UF 35WV ELECTRO 1000UF 16WV NP-ELEC 1UF 50WV		209 2D 210 2D	-
101 3B 102 2A 103 2B	E11-0320-05 E11-0321-05 E13-0432-05	PHONE JACK(MICROPHONES) PHONE JACK(HEADPHONE) PHONO JACK	:	211 2D 212 2D 213 1C 214 1C 215 1C	
L1 ,2 L3 ,4 L7 ,8 L9	L40-2235-21 L79-0312-05 L40-4725-21 L32-0513-05	INDUCTOR 22MH FILTER (DOLBY) INDUCTOR 4,7MH OSCILLATING COIL	•	216 1C 217 1C 218 2C 219 2C	-
R43 ,44 R101,102 R105 R106 R107	R43-1368-15 R43-1322-15 R43-1310-05 R92-0514-05 R43-1312-15	FL-PROOF RD680 J 2H FL-PROOF RD220 J 2H FL-PROOF RD10 J 2H FUSE RESIST4.7 ZE FL-PROOF RD120 J 2H		220 3D 221 3C 222 3C 223 2D	-
R108 R125	R43-1318-15 R43-1301-05	FL-PROOF RD180 J 2H FL-PROOF RD1 J 2H		224 2C 225 1D	-
VR1 ,2 VR3 ,4 VR5 ,6	R12-4302-05 R12-3301-05 R12-3302-05	TRIMMING POT, (50KB) TRIMMING POT, (20KB) TRIMMING POT, (10KB)		226 3D 227 3C 228 2C 229 2C	:
VR7 .8 VR9	R12-5302-05 R06-5302-05	TRIMMING POT. (100KB) POTENTIOMETER (100KAX2)		230 10	-
\$1 \$2	\$42-4305-05 \$31-0310-05	PUSH SWITCH(DOLBY, SEL) SLIDE SWITCH(REC/PLAY)	*	231 30 232 2C 233 2D 234 2C	-
D1 ,2 D1 ,2 D1 ,2 D1 ,2 D20	V11-0076-05 V11-0271-05 V11-1200-80 V11-7700-30 V11-0295-05	1\$1555 1\$2076 1\$\$53 1\$2473 W06B		235 1C 236 1C 237 3C 238 2C	-
D20 D21	V11-7100-60 V11-0076-05	ERB12-01R 1s1555		239 1C 240 3D	-
D21 D21 D21 D22	V11-0271-05 V11-1200-80 V11-7700-30 V11-1301-50	1s2076 1ss53 1s2473 sirba10f(4001)		241 3C 242 2D 243 1D 244 3D 245 3D	-
				277 30	

Ref. No.	Parts No.	Description	Re-
参照番号	部品番号	部品名/規格	mark! 備考
101	v30-0495-10	H=7104	
102 ,3	v30-0316-20	MB3106 NE646B	
1C4 1C5 ,6	V30-0558-10 V30-0559-10	UPC78M18H AN6878	
Q1 -6 Q1 -6	V03-0828-60 V03-0945-40	2sc828(Q,R,S) 2sc945(Q,P,K)	
Q1 -6 Q1 -6	V03-1740-30 V03-2320-10	2sc1740(Q,R) 2sc2320(E,F)	
97	v03-2060-10	25C2060(Q,R)	
Q.8	v0.1-0564-30	2sa564(Q.R.,s)	
Q8 Q8	V01-0733-40 V01-0999-10	2\$A733A(Q,R,K) 2\$A999(E,F)	
9 .10	V03-0828-60	25C828(Q,R,S)	ŀ
Q9 ,10	V03-0945-40	2SC945(Q,P,K)	
Q9 ,10 Q9 ,10	#V03-1740-30 V03-2320-10	2sc1740(Q,R) 2sc2320(E,F)	
		Y (D40-0519-05)	L
201 2C	•	CHASSIS	
202 3C 203 2C	-	HEAD PANEL PREVENTION LEVER	
204 3D	-	PUSH BUTTON LEVER 3C	
205 3D		PUSH BUTTON LEVER 3G	
206 3D 207 3D	-	PREVENTION PLATE X2 INTERCONNECTION LEVER	
208 2D	-	SWITCH ARM	
209 2D 210 2D	-	REC ARM REW ARM	
211 2D	_		
212 20	-	PLAY ARM FF ARM	
213 1C 214 1C	-	OPERATION LEVER OPERATION LEVER(STOP)	
215 1C	-	LOCK PLATE	
216 10	-	DRIVE ARM	
217 1C 218 2C	-	TRIGGER LEVER BRAKE ARM	
219 20	-	REC SENSOR	
220 30	•	TRIGGER OPERATION PLATE	
221 3C 222 3C	-	TIMER LOCK LEVER TIMER STOP LEVER	
223 20	-	PAUSE ARM	
224 2C 225 1D	-	REC SENSOR ARM STOP RELEASE LEVER	
226 30			
227 3C	-	CAM ARM DETECTION LEVER	
228 2C 229 2C	-	CASE LOCK LEVER STOP LEVER	
230 10	-	CAM ARM RETAINER	
231 30	-	AUTO CAM	
232 2C 233 2D	:	RF LEVER PAUSE CAM	
234 2C	-	RF LEVER METAL	
235 1C	-	LEVER SPRING STOPPER	
236 1C 237 3C	•	CAM RETAINER	
237 3C 238 2C	-	PANEL HOLDER CASSETTE HOLDER SPRING	
		DRIVE ARM SUB PLATE	
239 1c	-		
239 1C 240 3D	:	FRAME	
239 1c	:	FRAME LOCK LEVER HOLDER	
239 1C 240 3D 241 3C	:	FRAME	